Maryland Historical Trust

Maryland Inventory of Historic Properties number: K-455

Name: MD 291 over Morgan Creek

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

MARYLAND HISTORICAL TRUST

Eligibility Recommended ___X___ Eligibility Not Recommended _____

Criteria: ____A ____B __X__C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G __None

Comments: _____

_____

_____

Reviewer, OPS: _Anne E. Bruder_____ Date: __3 April 2001____

Reviewer, NR Program: __Peter E. Kurtze_____ Date: __3 April 2001____

MARYLAND INVENTORY OF HISTORIC BRIDGES **MHT No.** K-453
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

SHA Bridge No. 14022 **Bridge name** MD 291 over Morgan Creek

LOCATION:
Street/Road name and number [facility carried] MD 291

City/town Hopewell **Vicinity** X

County Kent

This bridge projects over: Road ____ **Railway**____ **Water** X ___ **Land** _____

Ownership: State ___X_____ **County** ___ **Municipal** _____ **Other** _____

HISTORIC STATUS:
Is bridge located within a designated historic district? Yes _____ **No** X
National Register-listed district _____ **National Register-determined-eligible district** ____
Locally-designated district _____ **Other** _____

Name of district _____

BRIDGE TYPE:
Timber Bridge _____:
Beam Bridge _____ **Truss -Covered** ____ **Trestle** _____ **Timber-And-Concrete** ____

Stone Arch Bridge ___

Metal Truss Bridge X

Movable Bridge _____:
Swing _____ **Bascule Single Leaf** _____ **Bascule Multiple Leaf** ___
Vertical Lift __ **Retractile**_____ **Pontoon** _____

Metal Girder _____:
Rolled Girder _____ **Rolled Girder Concrete Encased** _____
Plate Girder _____ **Plate Girder Concrete Encased** _____

Metal Suspension ___

Metal Arch ___

Metal Cantilever ____

Concrete ____:
Concrete Arch_____ **Concrete Slab**_____ **Concrete Beam** ____ **Rigid Frame** _____

Other _____ **Type Name** _____

DESCRIPTION:

Describe Setting:

Bridge 14022 carries Maryland Route 291 over Morgan Creek near Hopewell, MD. Route 291, a fairly busy state road, runs in a generally northeast-southwest direction and Morgan Creek flows northwest-southeast at this location. The area, located between Chestertown and Morgnec, is relatively rural and undeveloped. A Maryland Department of Transportation building and related buildings are located just southwest of the bridge.

Describe Superstructure and Substructure:

Bridge 14022 is a single-span Pratt through-truss with eight panels measuring 196 feet 6 inches in total length and supporting a 24 foot wide roadbed carrying two lanes of traffic. The deck is a 9-1/2-inch thick reinforced concrete slab with 9-inch-by-8-inch curbs on either side. The vertical members and diagonal tension members are all I-shaped sections. At each truss line, a single line of rolled I section bracing is provided at mid-height of the diagonals and verticals of the four center panels. The top lateral bracing is made of two angles with lacing. The top chord is composed of back-to-back channels with plating on top and lacing underneath, while the bottom chord is composed of built-up face-to-face channels. The floor system is comprised of I-shaped stringers and floorbeams and cross bracing made of angles. All connections are riveted gusset plates. The southwest end of the top chord of the truss bears a plaque inscribed with the year built and the State Roadway Commission in charge of the bridge design. The railings are made of angles and pipe on each side on the inside of the truss lines. The substructure includes reinforced concrete cantilever abutments and wingwalls both supported by pile footings. There are utility poles and lines on either side of the truss bridge structure.

Discuss Major Alterations:

In 1992 the reinforced concrete abutments and wingwalls received gunnite mortar repairs due to structural needs. In 1994 the entire truss was repainted.

HISTORY:

WHEN was bridge built (actual date or date range) 1934
This date is: Actual X **Estimated** _____
Source of date: Plaque X **Design plans** _____ **County bridge files/inspection form** _____
Other (specify) SHA Files; State inventory form; Plaque, which lists names of State Roads Commission chairman G. Clinton Uhl, Commission members Robert Lacy and E. Brooke Lee, Chief Engineer H.D. Williar, and Bridge Engineer W.C. Hopkins.

WHY was bridge built? To provide a reliable crossing of Route 291over Morgan Creek, to meet local and regional transportation needs.

WHO was the designer _____

WHO was the builder _____

WHY was bridge altered? [check N/A X **if not applicable]** _____

Was bridge built as part of organized bridge-building campaign? Yes X **No** _____
This bridge was built under the aegis of the State Roads Commission as part of the Good Roads Movement.

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:
A - Events X **B- Person** _____
C- Engineering/architectural character X

K-453

Was bridge constructed in response to significant events in Maryland or local history? No_Yes X

This bridge was one of a small but significant number of metal truss bridges erected in Maryland from the 1920s through the 1940s. Its heavy, solid construction reflects continuing advances in metal truss technology and fabrication early in the century, and the almost unyielding reliability of substantial trusses for major crossings. Such bridges were built throughout the state during the period, particularly in the early 1930s, as part of the Good Roads Movement promoted by the State Roads Commission. Many of them retain plaques indicating that they were built under the aegis of the Commission, even though they were designed by private bridge building firms.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth & development of the area? No ___ Yes X

Because of their solidity and reliability, metal truss bridges with heavy members such as the Route 291 bridge were often utilized in Maryland from the 1920s through the 1940s at long crossings. Multi-lane facilities carrying major thoroughfares, they had not only a significant impact on local growth, but facilitated regional residential, commercial, agricultural, and industrial development.

Is the bridge located in an area which may be eligible for historic designation? No X Yes ____ Would the bridge add to ____or detract from ____historic & visual character of the possible district?

Is the bridge a significant example of its type? No _____ Yes X

Between 1840 and the Civil War, under the impetus of a rapidly expanding railroad system, the majority of early American metal truss bridge forms were patented and introduced. In Maryland, the earliest metal truss bridges carried rail lines, which required their great strength and reliability. From the War through the end of the century, metal truss technology was improved, steel began to replace iron, and the use of trusses was expanded to carry roads as well as rail lines.

Numerous metal truss bridges were erected in Baltimore, the original hub of the metal truss in the state, from the 1850s through the 1880s. From Baltimore, the use of the metal truss spread out to other parts of the state, particularly the Piedmont and Appalachian Plateau. Many bridge and iron works were established in the eastern United States to design and fabricate truss members, which were then shipped to sites in Maryland and elsewhere to be erected. More than 15 different bridge companies located in Maryland, Ohio, Pennsylvania, New York, Virginia, and Indiana are known to have shipped metal truss bridges to sites throughout Maryland. Bridges were first fabricated in Maryland, and shipped to sites within the state and beyond, by the companies of seminal bridge designer Wendel Bollman.

Early in the twentieth century, concrete bridges began to compete with metal truss bridges throughout the state at small to moderate crossings. With the development of uniform standards for concrete bridges by the State Roads Commission in the 1910s, the construction of smaller metal truss bridges significantly declined throughout the state. The metal truss still remained the bridge of choice for large crossings, however. In the 1920s, heavier members began to be used at these bridges. Reflecting even heavier load requirements and increased lengths, metal truss bridges erected in the state in the 1930s and 1940s were heavy and solid, rather than light and delicate like their late-nineteenth and early-twentieth century predecessors.

Numerous Pratt truss bridges were erected throughout the country between 1844, when the type was patented by Thomas and Caleb Pratt, and the early twentieth century. The Pratt has diagonals extended across one panel in tension and verticals in compression, except for hip verticals immediately adjacent to the inclined end posts of the bridge. The large majority of Maryland's surviving metal truss bridges are Pratts, built as through or pony trusses either riveted or pin-connected.

This bridge was erected during one of the three key periods (1840-1860, 1860-1900, and 1900-1960) of bridge construction in Maryland. Built in 1934, it falls within the period 1900-1960. During this era, metal truss highway bridges became increasingly standardized. Also during this period, smaller and moderate length trusses were gradually replaced by reinforced concrete structures, and the modern metal

girder bridge, which could easily be widened, replaced the metal truss bridge at all but the largest approaches and crossings. Built after 1930, it is characterized by heavy solid members, rather than the relatively delicate members that characterized its late-nineteenth and early-twentieth century predecessors.

The bridge is also notable as one of the few trusses erected on Maryland's Eastern Shore.

Does bridge retain integrity [in terms of National Register] of important elements described in Context Addendum? No ___ Yes X_____

Is bridge a significant example of work of manufacturer, designer and/or engineer? No___ Yes _

Neither manufacturer, designer, nor engineer has been identified for this bridge.

Should bridge be given further study before significance analysis is made? No _X_ Yes _____

It is believed that no further evaluation is necessary to determine the eligibility of this bridge for listing in the National Register. However, additional research, which could be conducted as part of any future National Register nomination prepared for the bridge, might provide further information about its history and environs.

BIBLIOGRAPHY:

Bridge inspection reports and files of the Maryland State Highway Administration.

County survey files of the Maryland Historical Trust.

Jackson, Donald H. *Great American Bridges and Dams*. Washington, D.C: The Preservation Press, 1968

P.A.C. Spero & Company and Louis Berger & Associates, Inc. *Historic Bridges in Maryland: Historic Context Report*. Prepared for the Maryland State Highway Administration, September, 1994.

Pennsylvania Historical and Museum Commission and Pennsylvania Department of Transportation. *Historic Highway Bridges in Pennsylvania*. Commonwealth of Pennsylvania, 1986.

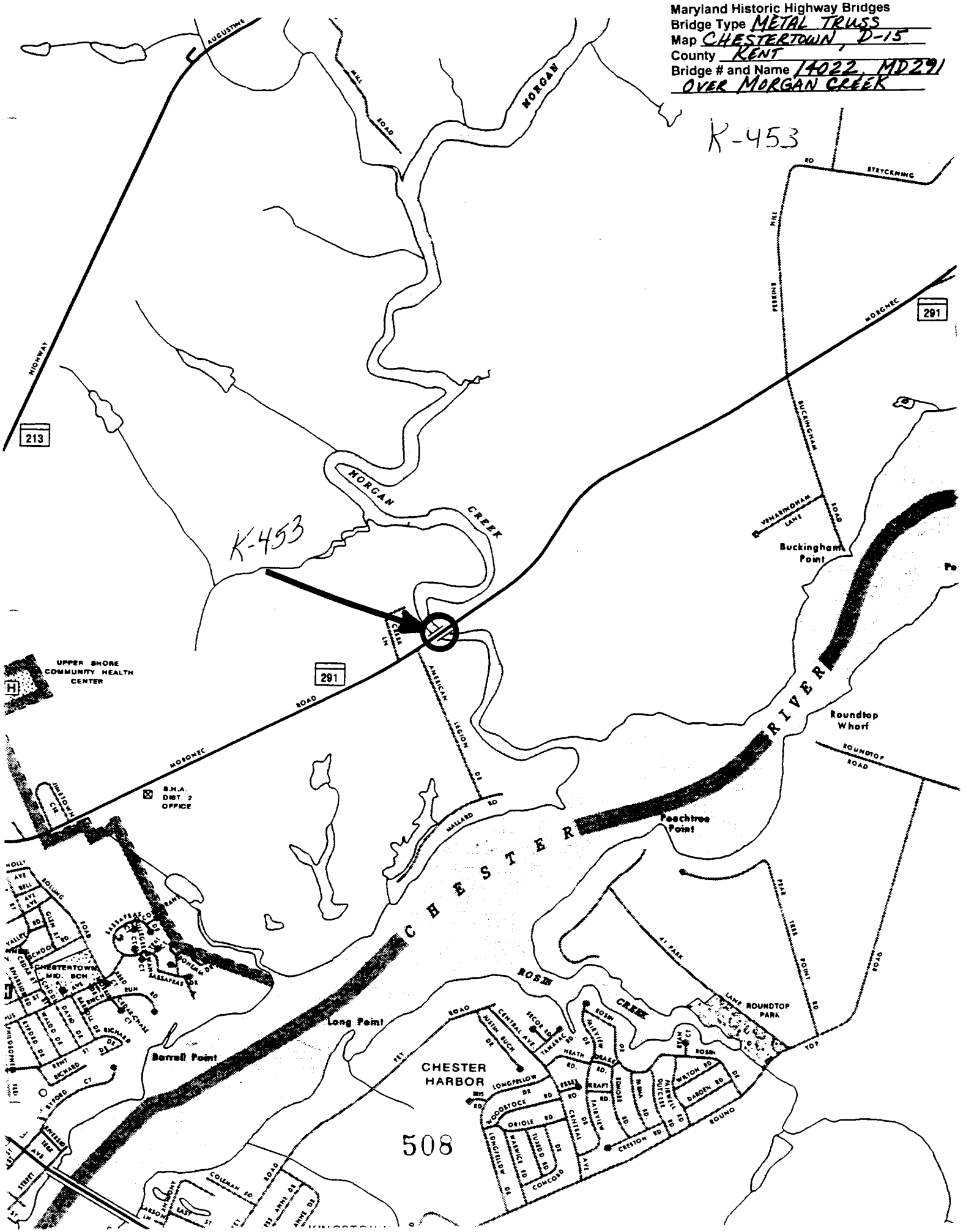
State inventory form K-453

SURVEYOR/SURVEY INFORMATION:

Date bridge recorded 1/31/95

Name of surveyor Matt Hickson/Marvin Brown
Organization/Address GREINER, INC., 2219 York Road, Suite 200, Timonium, Maryland 21093-3111
Phone number 410-561-0100 **FAX number** 410-561-1150

Maryland Historic Highway Bridges
Bridge Type METAL TRUSS
Map CHESTERTOWN, D-15
County KENT
Bridge # and Name 14022, MD291
OVER MORGAN CREEK



K-453

Kent County

Matt Hickson

1-31-95

~~Maryland SHD~~ SHA

Bridge 1402 - Looking East

1 of 5

K-453

KENT COUNTY

MATT HICKSON

1-31-95

~~MARYLAND SHPO~~ SHA

BRIDGE NO22, LOOKING NE

2 OF 5

K-453

KENT COUNTY

MATT HOWSON

1-31-95

~~MARYLAND~~ SHPO

BRIDGE 14022, PLAQUE ON DOWNSTREAM TIP

3 OF 5

K-453
KENT COUNTY
MATT HICKSON
1-31-95
MARYLAND SHPO SHA
BRIDGE #022, LOOKING DOWNSTREAM (SE)
4 OF 5

K-453
KENT COUNTY
MATT HICKSON
1-31-95
~~MARYLAND SHPO~~ SHA
BRIDGE 1402, LOOKING UPSTREAM (NW)
5 OF 5

K-453 1933
Hopewell Bridge
Hopewell vicinity
public (unrestricted)

This bridge carries Maryland Route 291 across Morgan Creek near Hopewell, Maryland. It consists of a single span Parker steel through truss, 194 feet in length, which supports a 24 foot wide roadbed.

Erected in 1933, this structure was built according to in-house specifications of the Maryland State Roads Commission, under the chairmanship of G. Clinton Uhl, H.D. Williar, Chief Engineer, and W.C. Hopkins, Bridge Engineer. Robert Lacy and E. Brooke Lee also served as Commissioners.

Hopewell Bridge is the only historic truss bridge -- part of Maryland's state road system in Kent County, and one of 26 bridges of the same general structural type throughout the state road network -- identified by the Maryland Historical Trust for the Maryland Department of Transportation in a jointly conducted survey which took place during 1980-81.

SHA# 14022

MARYLAND HISTORICAL TRUST

K- 453

MAGI # 1524533317

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

1 NAME

HISTORIC

AND/OR COMMON
Hopewell Bridge

2 LOCATION

STREET & NUMBER
Maryland Route 291 and Morgan Creek

CITY, TOWN
Hopewell

X VICINITY OF

CONGRESSIONAL DISTRICT
1 st

STATE
Maryland

COUNTY
Kent

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	X PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
X STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	X YES: UNRESTRICTED	__INDUSTRIAL	X TRANSPORTATION
		__NO	__MILITARY	__OTHER

4 OWNER OF PROPERTY

NAME
State Highway Administration DOT Survey

Telephone #:

STREET & NUMBER
301 West Preston Street

CITY, TOWN
Baltimore

__ VICINITY OF

STATE, zip code
Maryland 21201

5 LOCATION OF LEGAL DESCRIPTION

Liber #:

Folio #:

COURTHOUSE
REGISTRY OF DEEDS, ETC Kent County Courthouse

STREET & NUMBER

CITY, TOWN
Chestertown

STATE
Maryland

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

DATE

__FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR
SURVEY RECORDS

CITY, TOWN

STATE

7 DESCRIPTION

K-453

CONDITION		CHECK ONE	CHECK ONE
__EXCELLENT	__DETERIORATED	XUNALTERED	XORIGINAL SITE
XGOOD	__RUINS	__ALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

This structure carries Maryland Route 291 across Morgan Creek near Hopewell in a NE-SW direction. It consists of a single Parker steel through truss, 194' in length, with riveted connections. The roadbed is 24' wide.

CONTINUE ON SEPARATE SHEET IF NECESSARY

8 SIGNIFICANCE

K-453

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION	
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE	
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__1600-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN	
__1700-1799	__ART	X ENGINEERING	__MUSIC	__THEATER	
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	X TRANSPORTATION	
X 1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)	
		__INVENTION			

SPECIFIC DATES 1933 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

built according to in-house specifications of the State Roads Comm., H.D. Williar, Chief Engineer, W.C. Hopkins, Bridge Engineer.

(See general bridge significance, M/DOT Survey, attached). This bridge is associated with the State Roads Commission of Clinton Uhl (chairman), Robert Lacy and E. Brooke Lee. (see Uhl notes, attached).

CONTINUE ON SEPARATE SHEET IF NECESSARY

K-453

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Files of the Bureau of Bridge Design, State Highway Administration, 301 West Preston Street, Baltimore, Md.

Condit, Carl, American Building Art, 20th Century; New York, Oxford University Press, 1961.

CONTINUE ON SEPARATE SHEET IF NECESSARY

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____
Quadrangle Name: Chestertown, MD
Quadrangle Scale: 1:24 000

UTM References:

18.418280.4343100

VERBAL BOUNDARY DESCRIPTION

NA

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE NA COUNTY

STATE COUNTY

11 FORM PREPARED BY

NAME / TITLE

John Hnedak/M/DOT Survey Manager

ORGANIZATION — DATE

Maryland Historical Trust — 1980

STREET & NUMBER — TELEPHONE

21 State Circle — (301) 269-2438

CITY OR TOWN — STATE

Annapolis — Maryland 21401

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust
The Shaw House, 21 State Circle
Annapolis, Maryland 21401
(301) 267-1438

PS-1108

I

GENERAL BRIDGE SIGNIFICANCE

The significance of bridges in Maryland is a difficult and subtle thing to gauge. The Modified significance criteria of the National Register, which are the standard for these judgements in Maryland, as in most states, must be broadly applied to allow for most of these structures, In particular the 50 year rule which specifies a minimum age for structures can be waived, and is more commonly done so for engineering structures than for others. Questions of uniqueness and typicality, exemplary types, etc., must set aside for now, because they presuppose a wider knowledge of the entire resources than is presently available. Indeed, this survey is an initial step toward understanding the extent to which Maryland's bridges are part of her cultural resources. Aesthetic considerations may have to be sidestepped entirely, for such structures as these are generally considered mundane and ordinary at best, and sometimes a negative landscape feature, by the layman. It does take a specialized aesthetic sense to appreciate such structures on visual grounds, but a case for visual significance can be made. The remaining criteria are those of historical associations. The relative youth of most of these structures precludes a strong likelihood of participation to events and lives of import. The best generalization can be made for most bridges is that they are built on site of early crossings, developing from fords and ferries through covered bridges and wooden trusses to their present state. This significance inheres in the site, however, and in most cases would not be diminished by the adsense of the present structure.

These criteria may also be addressed positively. The primary significance of these bridges, those which were built between the two World Wars, consists in their association with rapidly changing modes and trends in transportation in America during the period. The earliest of them saw the appearance of the automobile and its rise as the preëminent means of getting Americans from place to place. Roads were being improved for increased speeds and capacity, and bridges, as potential weak links on the system, became particularly important. The technology for producing them was not new, and would not change significantly during the period. Accordingly, great numbers of easily, quickly and relatively cheaply built concrete slab, beam and arch bridges were built to span the samll crossings, or were multiplied to cover longer crossings where height was no problem.

Truss bridges with major structural members of compound beams, of either the Warren or Pratt types, while more expensive and considered more intrusive on the landscape, were built to span the larger gaps.

With an aesthetic which allowed concrete slab bridges to have classical balustrades, or the application of a jazz-age concrete relief; with the considerable variety possible in the construction of medium sized metal trusses; and with the lack of nationwide standards for highway bridge design, the resulting body of structures displays considerable variety. The sameness of appearance of currently produced highway bridges leads one to believe this variety will not reappear. For that reason alone it is wise to keep watch over our existing bridges. Regardless of ones taste and aesthetic preference, one must be admitted that these older bridges add their variety and visual interest to the environment as a whole, and that it is often the case that their replacement by a standard highway bridge results in a visual hole in the landscape.

In situations requiring decisions of potential effect on these structures, they should receive some consideration. As the recording and subsequent understanding of Maryland's Cultural resources grows, they will be recognized as a significant part of that heritage.

It should be noted that two non-negligible classes of structure have been omitted from this set. The first is the huge number of concrete slab or beam bridges of an average of twenty feet or less in length. These are so nearly ubiquitous and of such minor visual impact (they are often easy to drive across without noticing) that they were not inventoried. They are considered in the general recommendations section of the final report of this survey, however.

The second category is that of the "great" bridges, the huge steel crossings of the major waterways. While they are awesome and aesthetically appealing, they are not included in this inventory because they do not share the problems of their more modest counterparts. They do not lack for recognition, they have not been technologically outmoded, and are in no danger of disappearing through replacement. In a sense, they are not as rare; hundreds of

these great bridges are known nationally, and there is little doubt as to the position of any one bridge within national spectrum. There seems little point in including them with the larger inventory of bridges. From an arbitrary point of view, their dates are outside the 1935 limit which we set for the consideration of bridges. We have departed from that limit on occasion, but will not in this case. These bridges, too, will be considered in the final report.

Moveable bridges deserve a special note regarding their significance. They are rare, and all but the most recent of them have been listed by this survey by virtue of that fact alone. They are, by their nature as intermittent impediments to the smooth flow of traffic, threatened. We rarely tolerate disruptions to what we perceive as our progress. This has been demonstrated recently by the replacement of the drawbridge at Denton, on one of the major routes to the Atlantic Coast from the rest of Maryland.

However much we are inconvenienced by them, we must admit that moveable bridges contribute a share of interest to the landscape. As with significance judgements in general, we here enter a realm which is governed by taste and opinion. Some of us might not enjoy being forced to site back for a while to look at the surroundings which we would otherwise totally ignore, especially if the engine is in danger of boiling over. But there are those who are fascinated by the slow rise of a great chunk of roadway, moved by quit, often invisible machinery; who are amused by the tip of the mast which skims the top of the temporary wall; or who reflect on the nobility inherent in a river and the fact that we have not subdued every waterway with our autos, while knowing that we can if we want to.

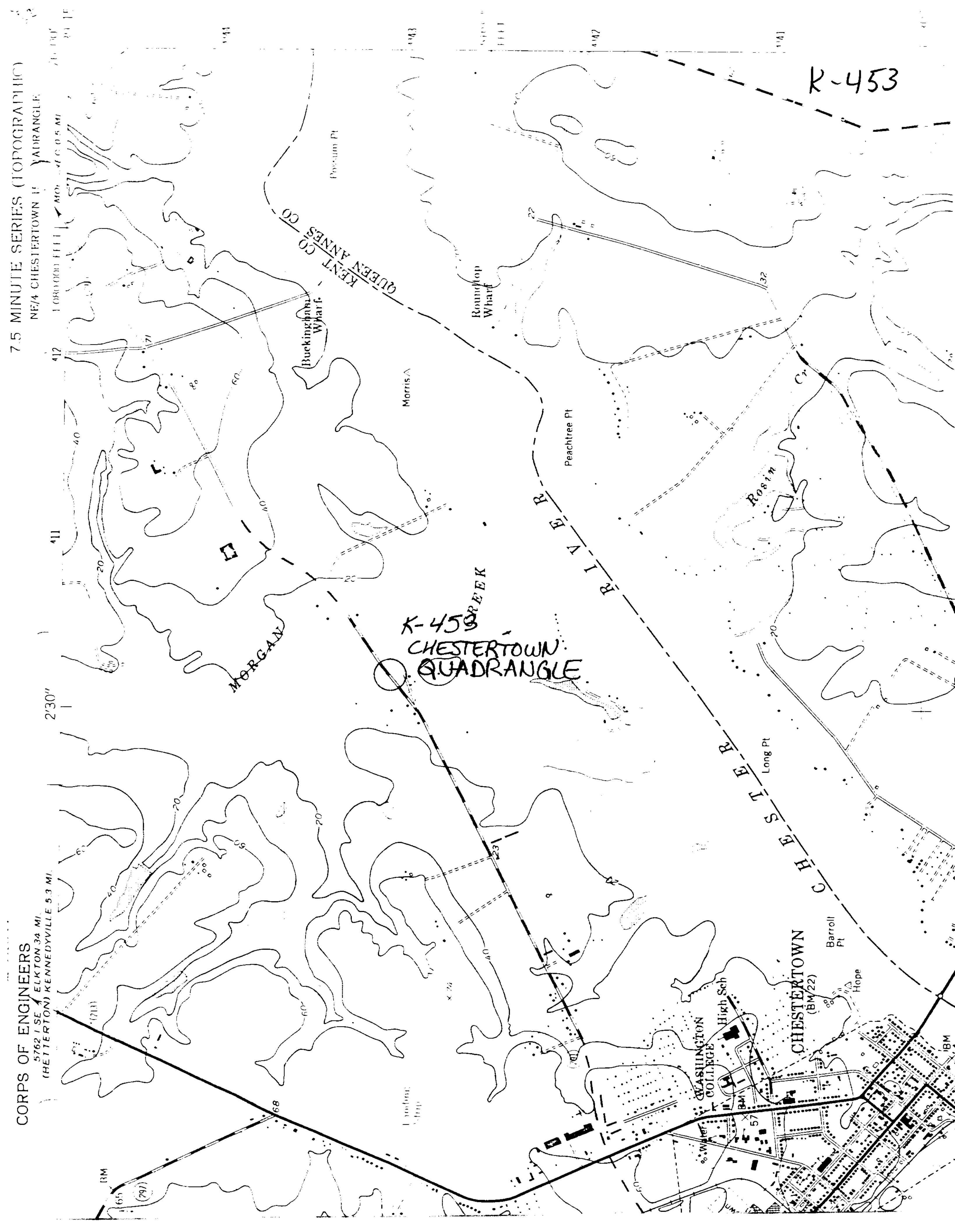
K-453

G. Clinton Uhl (1871-1934)

This bridge has been associated with the name of Clinton Uhl, either by direct reference or by the coincidence of its date of construction with Mr. Uhl's tenure as chairman of the State Roads Commission.

Mr. Uhl's life is but sketchily known at present. His name is physically incribed on more bridges of this period than that of any other individual, and it may be inferred that he was to some not-inconsiderable extent responsible for the shape taken by the state's road and bridge system in the middle 1930s, and possibly, at least in terms of construction policy, for some time beyond that.

From Uhl's obituary, found in the Balitmore Sun of 6 August 1934, we learn that he became interested in roads at age 20 because of difficulties encountered while trying to excute the duties of a delivery boy, in the employ of the McMullen Brothers of Cumberland. He was sufficently energetic and ambitious to establish "Clinton Uhl and Company", a general store; the Maryland Shoe Company; both in Cumberland; the Greenbriar Quarry; and the Mt. Savage Fuel Company. He became a member of the board of road directors of Allegany County in 1905. In 1916 he was appointed to the State Roads Commission, becoming its chairman in 1929 and serving until his death. The one dark spot in his career seems to have been an accusation by a West Virginia contractor that he (the contractor) was denied a contract for refusing to buy stone from the Greenbriar Quarry. Uhl was cleared of all charges of misconduct with the help of Governor Ritchie. The roads of Allegany were considered to be the best in the State during Uhl's tenure there.


K-453
K-453
CHESTERTOWN
QUADRANGLE
7.5 MINUTE SERIES (TOPOGRAPHIC)
CORPS OF ENGINEERS
KENT CO
QUEEN ANNES CO
CHESTER RIVER
MORGAN CREEK
Buckingham Wharf
Roundtop Wharf
Peachtree Pt
Long Pt
Barroll Pt
Rosin Cr
CHESTERTOWN
(BM 22)
WASHINGTON COLLEGE
High Sch
Hope
Water
2'30"

K-453
Hopewell Bridge
M/DOT
Hnedak/Meyer
Summer 1980